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ANNUAL REPORT

OF

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LIEUTENANT COLONEL W. P. BURNHAM

INFANTRY, UNITED STATES ARMY

ACTING COMMANDANT

THE ARMY SERVICE SCHOOLS

FORT LEAVENWORTH, KANSAS

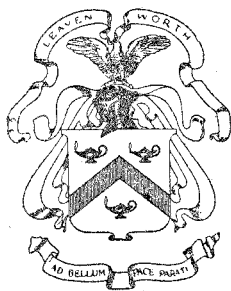
1914



PRESS OF
ARMY SERVICE SCHOOLS

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FORT LEAVENWORTH, KANSAS

May 6, 1914.

From: Acting Commandant, Army Service Schools.

To: The Adjutant General, U.S. Army.

Subject: Annual Report for year 1913-14.

1. The following report of the operations and administration of The Army Service Schools from August 31, 1913 to May 6, 1914, is submitted.

I have been continuously on duty as Acting Commandant, and Director, Army School of the Line and Staff College, since September 4, 1912.

Early Graduation: The regular course of instruction commenced on September 5, 1913, and under normal conditions would have continued until June 20, 1914. April 24, 1914, the War Department directed that the sixteen officers belonging to the 5th Brigade, then about to sail for Vera Cruz, Mexico, be sent at once to join their regiments. In accordance with a telegram from the same source, dated April 25th, the members of all classes and schools were graduated at 10:00 a.m., April 28, 1914. On the following day instructions were received to order all line officers who were assigned to regiments to join their proper commands, and the same telegram stated that orders would issue from the War Department covering the relief and movements of other officers on duty at the schools. In reply to an inquiry from higher authority I made a request, which was approved, that unless the emergency be very great

the Academic Board and 1st Lieutenant H. E. Mann, 12th Cavalry, be allowed to remain for about a week to close up the affairs of their departments in an orderly manner, prepare diplomas, and recommendations for the graduates, submit their annual reports, lay out a schedule of instruction that could be taken up by their successors when the institution reopens, etc.

The Academic Board worked day and night, including Sunday, with most commendable zeal to accomplish the desired result. Major Charles Miller, 7th Infantry, Senior Instructor, Department of Languages, was called to join his regiment and left April 26th, without having time to submit an annual report, but the affairs of his department were left in good shape and were closed up very satisfactorily by Lieutenant Catron, 23d Infantry.

About 6:00 p.m., April 28th, Major Holbrook, 10th Cavalry, Senior Instructor, Department of Military Art, received telegraphic instructions to assume command of the 2d Squadron, 5th Cavalry at Fort Leavenworth, and proceed to Trinidad, Colorado, for duty in connection with trouble in the coal mine fields in that region. He left that night, but left a draft of his annual report, and I know that he had the work of his large and important department so well in hand that his successor will find it comparatively easy to begin where he left off.

May 1st, Lieutenant Colonel Porter, Judge Advocate, Senior Instructor, Department of Law, received orders to proceed at once to Vera Cruz, Mexico, reporting for duty to General Funston. By this time nearly all officers of the line had been relieved and were en route to join their regiments.

In compliance with instructions from the War Department, on April 30, I assumed command of the

post of Fort Leavenworth in addition to my school duties.

2. *Instructors:* The institution opened on September 5, 1913, with almost a complete corps of instructors. Their names and the slight changes made during the year will be found in the reports of the heads of schools and departments which accompany this document. The recommendations made in these reports are worthy of careful consideration. I was greatly impressed with the enthusiastic and cheerful manner in which all officers performed their allotted tasks. The discipline of the institution has been excellent. The School Staff and the student body seemed to be alive with the Leavenworth spirit—to do all I can and more. All directors and instructors are especially competent men suitable for their positions. To them and to the Secretary great credit is due for the harmony and good feeling that has been evident throughout the schools, and I hope that all of them may return on the reopening of the institution. The baneful results of a constant changing of instructors have been so often condemned that it seems unnecessary to make further mention of it.

3. *The Courses and Methods of Instruction* in the different schools and departments were practically the same as during last year. For detailed information regarding the same, reference should be made to the reports of directors and heads of departments hereto attached, and to the inclosed lesson sheets.* No material changes are recommended for the next year.

THE ARMY STAFF COLLEGE

4. The following-named officers constituted the Staff Class and all graduated April 28, 1914:

Captain W. C. Babcock, 13th Cavalry,
Major P. S. Bond, Corps of Engineers,

* Lesson sheets omitted from printed report.

Captain W. S. Bowen, Coast Artillery Corps,
Captain Preston Brown, 17th Infantry,
Captain W. S. Browning, 1st Field Artillery,
Captain F. L. Case, 3d Cavalry,
Captain A. G. Clarke, Coast Artillery Corps,
Captain C. S. Fries, 27th Infantry,
Captain J. DeC. Hall, 4th Infantry,
Captain E. S. Hartshorn, 3d Infantry,
Captain W. C. Johnson, Infantry,
Captain E. L. King, 2d Cavalry,
Major M. J. McDonough, Corps of Engineers,
Captain R. I. Rees, 3d Infantry,
Captain C. A. Romeyn, 2d Cavalry,
Captain W. B. Scales, 5th Cavalry,
Captain A. A. Starbird, 5th Field Artillery,
Captain William Taylor, 10th Infantry,
Captain J. S. Turrill, U. S. Marine Corps,
Captain Robert Whitfield, 22d Infantry.

THE ARMY SCHOOL OF THE LINE

5. The officers named below graduated April 28, 1914, in the Line Class:

Honor Graduates

1st Lieutenant J. R. Kelly, 26th Infantry,
1st Lieutenant O. P. Robinson, 21st Infantry,
Captain W. S. Grant, Cavalry,
Captain J. K. Miller, Infantry,
Major La Roy S. Upton, 10th Infantry.

Distinguished Graduates

1st Lieutenant Emmett Addis, 10th Cavalry,
Captain F. E. Bamford, 28th Infantry,
1st Lieutenant P. H. Clark, 23d Infantry,
Captain E. E. Fuller, 23d Infantry,
1st Lieutenant F. D. Griffith, jr., 6th Cavalry,
Captain J. S. Herron, Cavalry,
Captain H. L. Landers, Coast Artillery Corps,
1st Lieutenant J. P. McAdams, 11th Infantry,
1st Lieutenant E. J. Pike, 15th Cavalry,
Captain W. W. Taylor, jr., 19th Infantry,
Captain B. R. Wade, 30th Infantry,
Captain J. P. Wade, Cavalry,
1st Lieutenant J. M. Walling, 3d Infantry.

Graduates

1st Lieutenant J. K. Cowan, 4th Infantry,
Captain J. M. Cullison, 2d Infantry,
Captain L. A. Curtis, 22d Infantry,
Captain L. L. Deitrick, 9th Cavalry,
1st Lieutenant N. V. Ellis, 19th Infantry,
Captain Frederick Goedecke, 17th Infantry,
1st Lieutenant O. W. Harlow, 4th Field Artillery,
1st Lieutenant C. C. Jones, 7th Infantry,
Captain G. N. Kimball, 4th Cavalry,
Captain C. U. Leonori, 18th Infantry,
Captain G. E. Lovell, 14th Cavalry,
Captain H. J. B. McElgin, Coast Artillery Corps,
Captain H. J. McKenney, 12th Cavalry,
Captain E. B. Mitchell, 14th Infantry,
Captain E. P. Orton, 5th Cavalry,
Captain W. C. Rogers, 27th Infantry,
1st Lieutenant D. L. Roscoe, 1st Cavalry,
Captain B. G. Ruttencutter, 1st Infantry,
1st Lieutenant E. O. Saunders, 29th Infantry,
Captain Reuben Smith, 9th Infantry,
1st Lieutenant Robert Sterrett, 13th Cavalry,
Captain G. W. Wallace, 16th Infantry,
Captain H. C. Snyder, U. S. Marine Corps,
Lieutenant V. G. Villalta, Cuban Army.

Captain C. C. Carpenter, U. S. Marine Corps, started in this class, but was relieved January 12, 1914, on account of sickness.

6. The great majority of all concerned regretted that the exigencies of the service required the suspension of all work at such an early date, and the standing of the Line Class was a distinct disappointment to many of its members, who through illness or lack of preparation before coming here fell behind at the start, but who were pulling up at the finish. Had the course been continued to the end there is a possibility that a number of changes in relative standing would have occurred. The marks of this class were unusually close, with no great difference between any two men, so that slight difference in

mark might make much difference in standing. But every one can not graduate in the "fives" and the idea that the man who fails to "make the Staff Class" is disgraced and not of much account should be exploded. The high grade of work required of every officer who graduates at this institution marks him with the Leavenworth stamp, which means advanced and up to date knowledge of the profession of arms. In making confidential recommendations for file at the War Department with their efficiency records it is not unusual for the Academic Board to rate some of the officers in the lower half of a class higher than some of those who graduate in the upper half.

The Army School of the Line is the basic and most important school in the institution, and it is believed that the number in the Staff Class should be considerably less than fifty per cent of the number in the corresponding Line Class.

THE ARMY FIELD ENGINEER SCHOOL

7. The officers named below graduated in the above named school on April 28, 1914. The recommendation of the Director of this school regarding Honor Graduates, as well as that relating to an increase in the class are concurred in:

Captain Lewis M. Adams, Corps of Engineers,
Captain R. P. Howell, jr., Corps of Engineers.

THE ARMY FIELD SERVICE SCHOOL FOR MEDICAL OFFICERS

8. The course of instruction commenced April 1, and closed April 28, 1914, the class being composed of the following-named officers, who pursued the course satisfactorily, and were given certificates:

Major Thomas S. Bratton, Medical Corps,
Major James F. Hall, Medical Corps,

Major Thomas J. Kirkpatrick, Medical Corps,
Major M. A. W. Shockley, Medical Corps,
Major James S. Wilson, Medical Corps,
Major Hugh Scott, Oklahoma National Guard,
Captain Seth A. Hamel, Kansas National Guard,
Captain Charles O. Boswell, New York National Guard,
1st Lieutenant Henry W. Kennard, Maryland National
Guard.

CORRESPONDENCE COURSE FOR MEDICAL OFFICERS

9. The following-named officers pursued this course in a satisfactory manner. The character of their work will be found in the report of the Director, Department Care of Troops.

Major William H. Wilson,
Major Thomas S. Bratton,
Major Thomas J. Kirkpatrick,
Major James S. Wilson,
Major Bailey K. Ashford,
Major Weston P. Chamberlain,
Major Albert E. Truby,
Major Joseph H. Ford,
Major Louis T. Hess,
Major Christopher C. Collins,
Major Benjamin J. Edger, jr.,
Major Samuel M. Waterhouse,
Major Eugene H. Hartnett,
Major Charles E. Marrow,
Major M. A. W. Shockley,
Major Theodore H. Wadhams,
Major Theodore C. Lyster,
Major Chandler P. Robbins,
Major Thomas L. Rhoads,
Major Edward F. Geddings,
Major Arthur W. Morse,
Major Frank C. Baker,
Major Charles R. Reynolds,
Major Paul C. Hutton,
Major Frederick A. Dale,
Major Frank T. Woodbury,
Major Henry H. Rutherford,

Major Carroll D. Buck,
Major John A. Allen,
Major James F. Hall.

THE ARMY SIGNAL SCHOOL

10. The following-named officers constituted the class in The Army Signal School, all of whom graduated on April 28, 1914:

1st Lieutenant D. H. Bower, 22d Infantry,
1st Lieutenant G. R. Byrd, 17th Infantry,
1st Lieutenant G. F. N. Dailey, 20th Infantry,
1st Lieutenant R. A. Dunford, 26th Infantry,
1st Lieutenant Felix Emmanuelli, Porto Rico Infantry,
1st Lieutenant L. R. Fredendall, 2d Infantry,
1st Lieutenant D. D. Gregory, 5th Cavalry,
1st Lieutenant Clarence Lininger, 1st Cavalry,
1st Lieutenant J. A. McAndrew, 2d Infantry,
1st Lieutenant H. O. Olson, 18th Infantry,
1st Lieutenant W. E. Pridgen, 1st Infantry.

The recommendations contained in the report of the Director of this school regarding the elimination of Military Topography and Languages from the course have been thoroughly discussed by the Academic Board and brought to the attention of the War Department, where they did not meet with favorable consideration. It is my opinion that the present limited amount of Military Topography should be retained. The study of Spanish is important for all officers, but if a student has no knowledge of this language when he comes here, the devotion of only 64 half-days to its study will not give him even an elementary knowledge of it. He will have, however, a groundwork upon which he can build when time and inclination permit.*

The report of the Director of this school goes into considerable detail and recounts quite clearly its

*Since the report was written, instructions have been received from the War Department to discontinue Spanish in the Signal School.

operation and describes the enlisted men's school which was started this year.

SPECIAL CLASS FOR FIELD OFFICERS

11. The special course of instruction for this class commenced on the 7th of January and closed on the 20th of March, 1914. Special report on the work accomplished was forwarded on the 24th of March. This is the third class of this nature, and it is quite clear to my mind that the course has proved its usefulness to the officers concerned and to the service, and should be continued. All field officers between 45 and 55 years of age who have not had the benefit of instruction in Service Schools during the past 15 years should be required to pursue this course, and should be given several months notice of their detail. All members of the class pursued the course zealously and satisfactorily. The officers of the Marine Corps and the National Guard were handicapped on account of lack of due preparation. The names of the class follow:

Colonel Dorrance Reynolds, 9th Inf., Pa. National Guard,
Lieutenant Colonel T. P. Kane, U. S. Marine Corps,
Lieutenant Colonel Ernest Hinds, 5th Field Artillery,
Lieutenant Colonel J. P. O'Neil, 30th Infantry,
Lieutenant Colonel W. M. Wright, Infantry,
Major C. S. Hill, U. S. Marine Corps,
Major A. I. Lasseigne, 5th Infantry,
Major W. T. Wilder, 22d Infantry,
Major J. R. Lindsay, 28th Infantry,
Major Malvern-Hill Barnum, 9th Cavalry,
Major E. W. Evans, 10th Cavalry,
Major J. P. Tracy, Coast Artillery Corps,
Major R. L. Howze, 11th Cavalry,
Major J. L. Hines, 6th Infantry,
Major M. C. Butler, jr., 6th Cavalry,
Major W. M. Morrow, 11th Infantry,
Major T. F. Schley, 26th Infantry,
Major F. G. Landon, 7th Inf., New York National Guard,
Major J. M. Hutchinson, 71st Inf. New York National
Guard.

REMARKS AND RECOMMENDATIONS

12. *Marking System:* With the slight modifications referred to in my last annual report, the marks have been handled the same as last year, the marking having been done on a strictly percentage basis, all of which has proved to be entirely satisfactory to all concerned. The non-publication of the marks until the final standing of the student is determined is undoubtedly a large factor in maintaining harmony.

13. *Absence of Troops from Garrison:* All troops were absent throughout the year, except a squadron of cavalry in the post, and Company A, Signal Corps, in the Schools. Hence fall and spring maneuvers with troops had to be omitted, and on that account the War Department had approved the recommendation that the schools be closed this year on June 20 instead of June 30, the schedules and work having been adjusted accordingly. The presence here of the Field and Telegraph Companies of the Signal Corps is valuable and necessary, not only in the Signal School, but for demonstrations, etc., in all other schools. In a letter to the War Department dated March 28, 1914, I requested that a battery of field artillery be stationed in the post or in the college section, and gave what were thought to be good reasons for the request. Although this request was promptly disapproved I feel it my duty to express the hope that the matter may be reopened and favorably considered at a later date. To meet some of the objections to stationing a battery here it is recommended that the tour of the battery, which should come from the regiment at Fort Riley, should be for about a year and nine months, commencing about October 1st and ending about June 15th of the second year. During the summer months of the only year it would be actually absent from its regi-

ment the battery could march to its station, conduct its target practice, perform field duties, etc., and then return here by marching.

Battery E, 6th Field Artillery, Captain Fox Conner, commanding, marched here from Fort Riley, and remained from October 21 to October 24, 1913. It gave a demonstration of the reconnaissance of a position, the advance to and occupation of the same and then moved to a position west of Grant and near Metropolitan avenue, where about forty rounds of shrapnel were fired at targets west of the cemetery at a range of about 2,600 yards. The presence of this battery was most interesting and instructive.

The Staff Class and several instructors made a visit of a week in the latter part of October to the School of Fire at Fort Sill, where it witnessed school firing as well as working out some special problems, an extra allowance of ammunition having been authorized by the War Department. The class was greatly benefitted by this short experience, and all were enthusiastic in their praise of the manner in which they were entertained and instructed by the authorities at Fort Sill. The theory learned here was thoroughly stamped on their minds by these practical demonstrations of the uses of Field Artillery in time of war.

14. *Revision of School Regulations.* — General Orders No. 128, W. D., 1911, governing The Army Service Schools, are badly in need of a general overhauling. I intended immediately after the close of the schools to submit the draft of a revision, first obtaining the views of the Academic Board. This will be impossible now, and unless the unexpected happens, I shall not have time to submit all of the changes and corrections I have in mind. The institution worked during the year like a well-oiled machine, and should continue to do so if the same commissioned

personnel can be gotten together again. This, I fear, will be impossible, but upon the reopening of the schools I strongly urge the importance of returning as many of this year's instructors, especially the Academic Board, as the interests of the service will permit.

One of the temporary violations of the order in question was the detail this year of fourteen first lieutenants in the Line Class, which was necessary on account of the detached service law. I am still of the opinion that this should be an exceptional move, and that captains only should be allowed to take this course. The continuance of such a custom would soon find us with our War College graduates in the line of file closers, which would not be beneficial to the service.

My experience here during the past two school years as Acting Commandant, during which time I have also been nominally Assistant Commandant and Director of the Staff College and School of the Line, leads me to believe that the duties of all these offices should be performed by one man. The order in question considers two officers necessary to fill these positions, but I am of the opinion that this provision was made to avoid friction between the post and school authorities, by placing them both under a common head. This is a good idea in principle, but it should not be necessary. Although the post has been commanded during the past two years by several officers with rank from Captain to Colonel, the most cordial relations have existed between the post, the prison and the schools. With slight changes the school order could make of record the methods employed to dispense with an additional officer of high rank to supervise the work of the post and schools. I feel at liberty to express my views on this subject as a recent provision of the Army Appropriation Bill will

prevent my retention here after next September.

15. *The Quarters Question:* One of the greatest needs of the Schools is more quarters for officers and non-commissioned officers. Under past arrangements the Military Prison, being a separate unit under the direct control of the War Department, has always been provided with its own quarters. The remainder of the quarters on the reservation is divided between the post and the schools by a board of officers consisting of the post quartermaster and a representative from the post and the schools. The number of student officers is limited by the number of sets of officers' quarters made available each year in the college section. The number of regular students in the institution could be materially increased without any increase in the teaching force if quarters were available. A short time ago the War Department decided to turn over to the Prison four sets of married officers' quarters belonging to the schools, but by arrangement with the Commandant of the Prison they were not to be vacated by the student officers until the close of the school year, as by a wise rule student officers are not allowed to be "ranked out" during their course of instruction. These quarters should be replaced by others or the number of student officers next year must be reduced accordingly. At present about 50% of the quarters assigned to the post are of the bachelor type (2 rooms and bath.) About 25% of those pertaining to the college are of the same nature. This necessitates a number of married officers living in bachelor quarters. In the prison section every officer is provided with quarters suitable for the habitation of a family. The cheapest and most desirable kind of quarters to build for student officers would be a couple of flat buildings, similar to the two now in the college section, each accommodating four small families.

When Fort Omaha was abandoned last winter and its entire garrison, consisting of two Signal Companies and the school for enlisted men, was placed under the jurisdiction of this institution, some difficulty was encountered in quartering them, but the absence of troops from the post made it possible to make provision for all except their non-commissioned officers, many of whom still live in the city of Leavenworth, which is an expense to the government as well as to the men, and separates them at times from duty with their commands. This should be remedied.

16. *New Library*: The last Army Appropriation bill provides for the construction of a library building at a cost of \$60,000.00. Efforts have been made for the past ten years to get this structure and I hope that nothing will prevent its immediate construction. Revised plans are now being prepared, and a board of officers is considering some details relating to location, heating, etc., all of which will be made the subject of a separate document. Should my services be needed elsewhere before the board makes its report my ideas on the subject will be left on file in this office.

The space now occupied by the library in Sherman Hall is badly needed by the Signal School and if turned over to this school, the need of a new building for the Signal School will cease to exist.

17. *Equitation and Hippology*: These courses of instruction continue to be progressive, and were conducted on the lines outlined in my report of last year. Great interest was manifested in Equitation, about sixty officers taking the regular course, besides two volunteer classes numbering about twenty each—one of officers, the other of ladies. Lieutenant H. E. Mann, 12th Cavalry, who also commands the school detachments, is to be commended for his tact and

success in handling the course in horsemanship. The work, however, is too much for one officer.

18. *Permanent Personnel*: I cheerfully testify to my belief that the high standard of instruction and efficiency that has been maintained throughout the year is due to my able assistants. Every officer and man knew his business and attended to it most efficiently, all of which has made my duty a pleasant one. I am glad to have this opportunity to make special note of the capable services of Captain A. M. Ferguson, 14th Infantry, Secretary, and the various departments under his charge. He is the right man in the right place. The personnel of the civil service and the enlisted school detachments have done their work cheerfully and in a prompt and competent manner. Their efficiency was particularly marked and commendable during the hurried suspension of school work and the sudden graduation of all classes. They worked night and day and Sunday besides to insure a prompt and orderly closing of the institution. The civilian and enlisted personnel are indispensable to the successful operation and administration of the schools. Reference is made to my letter of April 26, 1914, to your office regarding the disposition of this force in case of emergency.

W. P. BURNHAM,
Lieutenant-Colonel, Infantry,
Acting Commandant.

REPORT OF SECRETARY AND DISBURSING OFFICER

April 28, 1914.

1. The following report is submitted of the operations of this office for the year 1913-14:

For the fiscal year beginning July 1, 1913, and ending June 30, 1914, the sum of \$15,000.00 was allotted for the use of the school. To date the expenditures have been as follows—

Furniture and stationery, office and library, apparatus and supplies, Department of Engineering, Drafting Room and Map Making Department	\$ 9,111.34
The Library (Books and Periodicals)	2,073.60
Book Bindery	420.49
Printing Office	1,802.41
Army Signal School	142.50
Rental of Telephones	354.70
Transportation of Persons	7.85
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	\$13,912.89

The balance, \$1,078.11, unexpended this date will be needed to meet contemplated purchases by June 30, 1914.

2. The Civil Service personnel connected with this office has rendered satisfactory service. Much of the smoothness of clerical affairs at the schools is due to Mr. J. W. Healey, Chief Clerk, so well and favorably known to officers of the army for many years.

3. A reorganization of the Army Service Schools Detachment, white, was effected last fall and published in G. O. 71, W. D. 1913. By this reorganization

an increase of 1 Master Signal Electrician, 2 Regimental Sergeants Major, 3 Battalion Sergeants Major and 2 Corporals was secured, with a decrease of 7 Sergeants and 7 Privates. The reorganization permitted the rewarding of deserving men for their services and afforded an opportunity to equalize rank in the various departments. A most efficient working force in all departments now exists and every effort should be made to maintain this efficiency. Several years efforts have been expended in the organization and upbuilding of this detachment and nothing should be done towards breaking it up. It is believed desirable that insofar as possible, promotion should be confined to the department in which a vacancy occurs. By giving each department an equitable portion of the various grades in the detachment and confining those grades to the department to which assigned, each individual will know just what are his prospects for advancement, and much unrest and jealousy will be eliminated.

4. The mailing list now serves about 2,035 officers of the regular services and 530 officers of the National Guard.

5. The addition of 2 signal corps organizations to the school personnel and the establishment of certain schools for enlisted men of the Signal Corps at these Schools has greatly increased the work of this office but it has at all times met the demands upon it.

A. M. FERGUSON,
Captain, 14th Infantry,
Secretary.

REPORT OF LIBRARIAN

April 30, 1914.

1. The following table gives the number of accessioned books on hand this date; the gains, losses, etc., during the ten months since the last report:

On hand June 30, 1913.....		<i>vols.</i> 26,199
ACCESSIONS:		
Public Documents & School Publications.....	88	
General Staff Translations.....	16	
From Bindery (service periodicals).....	219	
By Purchase.....	717	
By Donation.....	29	1,069
	<hr/>	
Total.....		27,268
Dropped (obsolete manuals, regulations, etc.)		183
		<hr/>
On hand, April 30, 1914.....		27,085

LIST OF DONATORS:

Cavalry Journal.....	6 vols.
Captain F. L. Case, U. S. Army.....	4 "
Captain A. G. Clark, U. S. Army.....	1 "
Captain A. L. Conger, U. S. Army.....	1 "
Captain P. Brown, U. S. Army.....	6 "
General J. P. Hawkins, U. S. Army.....	1 "
Captain C. D. Roberts, U. S. Army.....	3 "
San Diego Chamber of Commerce.....	1 "
General G. P. Scriven, U. S. Army.....	1 "
Captain O. L. Spaulding, U. S. Army.....	2 "
General J. H. Wilson, U. S. Army.....	1 "
Mr. Slason Thompson.....	2 "
	<hr/>
Total.....	29 vols.

Total number of books loaned out.....	2,515
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The greater number of books loaned out than was shown on last annual report was due to the larger sizes of classes. However, this reported

number of books taken out by no means represents the use made of the library by student officers and instructors, as probably ninety per cent or more of the books consulted by them are never taken out but are retained on their desks or tables in the library.

2. Very fortunately it will not be necessary again to call attention to the desirability and necessity of having a new library building to replace the present extremely unsatisfactory accommodations for housing the valuable and, in many respects, irreplaceable working tools of the Schools. It is hoped that the erection of the new library building, for which Congress has made an appropriation, may be commenced in the very near future.

3. Master Signal Electrician Harry Bell has continued to be the principal assistant in the library and, as has been so often reported before, his services have been invaluable not only as assistant librarian but also to nearly every department of the Schools on account of the translations he has made.

Battalion Sergeant Major Karl Unthank was relieved from duty in the library on February 21, 1914, by Battalion Sergeant Major James B. Rousseau. The services of the latter have been satisfactory and it is believed that with more experience in library work he will become a very valuable assistant.

EZRA B. FULLER,
Lieut-Colonel, U. S. Army, retired.

DEPARTMENT OF MILITARY ART

April 28, 1914.

I entered upon my duties as Senior Instructor of this department about a week after the opening of the school year.

The schedules prepared by my predecessor, Major Farrand Sayre, Cavalry, were being duly carried out by Major N. F. McClure, 5th Cavalry, assisted by the following instructors:

Major G. D. Moore, Infantry,
Major R. L. Bush, 26th Infantry,
Major H. A. Smith, 28th Infantry,
Captain W. G. Sills, 1st Cavalry,
Captain C. D. Roberts, 7th Infantry,
Captain W. K. Naylor, 9th Infantry,
Major H. G. Bishop, 5th Field Artillery,
Captain A. L. Conger, Infantry,
Captain P. T. Hayne, jr., 12th Cavalry,
Captain E. E. Haskell, Infantry,
Veterinarian G. E. Griffin, 3d Field Artillery.

Captain J. G. Hannah, Infantry, Instructor in the Army Field Engineer School, was attached to this department during the winter months.

Major H. G. Bishop, 5th Field Artillery, was relieved October 1, 1913 and replaced by Captain O. L. Spaulding, 4th Field Artillery, on October 8, 1913.

About March 1, 1914, Captain Naylor was relieved by reason of the detached service law and Captain Willey Howell, 4th Infantry, detailed in his stead.

Veterinarian G. E. Griffin, 3d Field Artillery, was relieved November 10, 1913. Veterinarian R. Vans Agnew, 5th Cavalry, was detailed by War Depart-

ment orders and reported for duty November 25, 1913.

To these officers I am greatly indebted for their cordial support and untiring efforts to make the year a successful one. I also desire to express my appreciation of the unfailing support given me by the Acting Commandant. The entire absence of friction between this and other departments during the year is worthy of note.

THE ARMY STAFF COLLEGE

One hundred and thirty of the total one hundred and seventy-four exercises scheduled for the Staff Class were duly carried out. The important course in Historical Research was practically completed. Unfortunately the school was closed before the conferences on Staff Duty could be fully completed.

To still further add to the value of the work in historical research it is proposed to transfer the first ten conferences on the Donelson Campaign to the Line Class and correspondingly increase the work on the Manchurian Campaign.

An effort is also being made to have source material of foreign campaigns translated into English and made available for the use of the Staff Class without the enormous labor hitherto attending this work. The Language Department has already partially completed the translation of two large volumes of source material of the Campaign of 1800, while Captain Conger is translating the material covering the Battle of St. Privat, a considerable portion of which has already been put in type.

It is believed that this work will greatly facilitate the study and add to the value of the course in Historical Research.

THE ARMY SCHOOL OF THE LINE

The Line Class has shown a very commendable spirit of enthusiasm and willingness to work and to

work hard. It is possible the records may show a somewhat lower marking than obtained by previous classes, but this difference will probably be found due to a change in the system of marking to a strictly percentage basis.

SPECIAL CLASS FOR FIELD OFFICERS

This class displayed most commendable zeal and completed the course with much credit. The officers of the Marine Corps and National Guard were greatly handicapped by lack of previous preparation.

All the members of the class expressed themselves as having derived much benefit from the course.

It is recommended that officers to be detailed for this class in the future receive at least four months notice of their intended detail in order that they may prepare themselves for the work and thus derive the maximum benefit from the course.

AMERICAN BOOKS

There has been a general demand for American books to replace foreign ones now in use at this school. This change may be brought about in time but the substitution should be a very gradual one. It was planned to have three division problems prepared for discussion next year to replace a like number of the Gizycki selected problems. X Also one reinforced brigade problem to be studied in connection with Griepengerl. It is thought that a gradual change could in this way be brought about, giving an opportunity for trying out and revising proposed substitutions before permanently adopting them as a part of the course.

INFREQUENT CHANGE OF INSTRUCTORS IMPORTANT

In this connection attention is invited to the great importance of keeping instructors here for a full four years' detail. By the end of the second year they have

become familiar with all the details of the work and are at the beginning of their creative period. If we are ever to have books of our own the chances are that they will be produced by instructors in the third and fourth years of their stay here or subsequently. It is desirable to have books written here where the subject matter can be tried out and revised before being put in permanent form.

SCHEDULES FOR 1914-15

Schedules for the year 1914-15 have been prepared in the hope that they will be of service when the schools are reopened. They embody a few changes thought desirable as a result of experience of the year just closed.

A great effort has been made to co-ordinate the work of instructors by requiring them to attend conferences in Field Service Regulations, Drill Regulations, Griepenkerl, etc., and subsequently discussing important and doubtful points brought out. It is believed that this has resulted most beneficially.

W. A. HOLBROOK,
Major 10th Cavalry,
Senior Instructor.

THE ARMY FIELD ENGINEER SCHOOL

April 30, 1914.

1. The purpose of The Army Field Engineer School, as set forth in paragraph 47, General Orders 128, War Department, 1911, is two-fold:

(a) The instruction of officers of the Corps of Engineers, and of engineer officers of the Organized Militia, in their military duties.

(b) To furnish such instruction in Military Engineering as the schedules of the other Schools comprised in The Army Service Schools may call for.

2. In addition to the undersigned, the following officers have been on duty as instructors in this School for the past term:

Major George R. Spalding, Corps of Engineers.

Captain James G. Hannah, Infantry.

Captain Max C. Tyler, Corps of Engineers.

During the months of November, December, January, February, and March Captain Hannah was temporarily attached to the Department of Military Art.

3. The course of study was successfully pursued by two officers of the Corps of Engineers until April 28, 1914, upon which date all Schools were broken up by War Department direction. The course has been practically the same as for the year 1912-13. It is to be regretted that the major portion of the instruction in the subject of battlefield fortifications was scheduled for the period after April 28, and consequently was lost to the class.

4. The recommendation of last year that special effort be made to increase the number of officers of

the Corps of Engineers attending this School is again made.

5. Attention is invited to the desirability of making provision for the grade of "Honor Graduate" of the Field Engineer School. Engineer students pursue the course in Military Art in The School of the Line in competition with the Line Class and where their work is of equal merit with that of "Honor Graduates" of this class their diploma should bear a specific statement to that effect. Recommendation covering this matter has been made by the Academic Board of the Schools and it is hoped that the action of the War Department thereon will be prompt and favorable.

6. *The Course in Military Engineering for The Army School of the Line* comprised 111 half days, of which only 60 days had been available up to April 28, 1914. For the general character of the course and the objects sought to be attained see paragraph 4, Annual Report 1912-13.

The portion of the term after April 28, 1914, comprised the major portion of the work in field fortification, which, on account of the importance of this subject, is cause for regret.

7. *The Course in Military Engineering for the Staff Class* comprised 58 half-days and 10 lectures, of which 37 half-days and time for all the lectures has been available. The general character of the course was the same as for the year 1912-13. Owing to the nature and disposition of the work of the Staff Class, the engineering instruction of these students suffered less from the loss of time than did the other classes, and they may be said to have received an approximately satisfactory course.

8. *A Course of 20 Half Days in Topography was Given the Class of The Army Signal School* during September, 1913. This resulted in the entire class

acquiring a satisfactory ability to read maps and to the development of sufficient skill in Military Sketching to warrant their being considered qualified for the performance of this duty.

9. *For the Special Class for Field Officers*, conducted during the year at The Army Service Schools, 4 half-days were devoted to map reading and 1 half-day to Field Fortification. In addition 4 lectures on engineering subjects were delivered. This work was done by instructors of The Army Field Engineer School, and good results were attained.

10. A course in map reading and the elements of Military Sketching, covering 13 half-days, was given the officers attending *The Army Field Service School for Medical Officers*, the work being done by the instructors of The Army Field Engineer School.

11. In addition to instructional duty, the Director of The Army Field Engineer School is charged with general supervision over the Drafting, Photographic, Lithographic, and Instrument Plants of The Army Service Schools. From rather small beginnings, the facilities here have been gradually developed until now practically any reproduction of line work can be successfully accomplished. During the period from July 1, 1913 to April 30, 1914, work as set forth below was accomplished:

DRAFTING ROOM

Drawings and Tracings, various.....	123
Blue and Black Prints, various.....	5080

Data for 4 additional quadrangles of the Gettysburg-Antietam War Game Map was secured and transferred to 6" equals 1 mile enlargement of the Geological Survey map. Tracings of these have been made and we are now in position to make the enlargements to 12" equals 1 mile for War Game Map, and to reduce to 3" equals 1 mile for general purposes.

An entire new set of plates of the 3" Gettysburg-Antietam Map is in preparation, conforming to the War Department requirement as to contour interval.

PHOTOGRAPHIC ROOM

Wet plates, various	388
Dry plates, various	88
Lantern slides	472
Prints, up to 8" x 10"	363
Bromide enlargements, maps	38

LITHOGRAPHIC ROOM

War game sheets, black impressions	28,294
War game sheets, blue impressions	22,852
Cuts for Army Signal School, black impressions	764
General work for Army Service Schools, black impressions	16,930
General work for Army Service Schools, blue impressions	6,268
Brass war game scales etched	209

INSTRUMENT ROOM

Wooden alidade scales made	900
Sketching boards made for Book Department	22

In addition the entire instrument equipment used in the topographical work of the Schools has been kept in repair.

In comparing quantities of work shown on this Report and those for former years, it must be borne in mind that the period herein covered is only ten months.

12. I desire to put on record my appreciation of the loyalty and support of the officers and enlisted men connected with The Army Field Engineer School during the past year, they having contributed in large measure to any success that has been attained.

13. I wish also to express my satisfaction at the cordial relations that have existed between all the Schools and the individuals composing the faculty, to the establishment of which happy state the un-failing courtesy and support of the Acting Commandant greatly contributed.

M. L. WALKER,
Major of Engineers,
Director.

DEPARTMENT OF LAW

April 28, 1914.

I have the honor to submit a report on the Department of Law for the academic year 1913-14.

The same number of half days was assigned to the instruction in law of the Line Class, as was assigned last year, and the distribution was in the same proportion among the courses.

The courses in the Elements of Law and in Criminal Law for the Line Class were not changed. As part of the former course three lectures on "Army Contracts", one lecture on "Riot Duty" and one lecture on "The Laws of War" were delivered.

In the course on Evidence for the same class a change was made in the textbook used, and Hughes on Evidence replaced McElvey.

It is recommended that more half days be assigned to the study of law by the Line Class as under the present schedule many of the lessons are too long to be properly assimilated.

As in the examinations many of the questions are now of a practical nature, but two days were devoted to practical exercises alone, the third day being given to the course in Evidence.

While the Staff Class had assigned to it fifteen half days, through an error in preparing the schedule of the College, but twelve days were reserved for the study of law. This permitted twelve lectures to be delivered on International Law having special reference to the Laws of War. It is understood that the error will be corrected for the next Academic

year and the three half days thus recovered will be devoted to the more specific consideration of the laws of Military Government, etc., etc.

Four lectures were delivered to the Special Class of Field Officers. Two of these were on the "Laws of War." It is believed that it would be to the advantage of the class to extend these lectures, and it is recommended that in the future more time be given to this department in which to lecture to the Field Officers Class.

Lectures were also delivered to the class of the Field Service School for Medical Officers. A problem prepared for this class, embodying various questions illustrative of the Geneva Convention and certain of the Conventions of The Hague was not solved, however, owing to the premature graduation of the classes.

Captain Charles D. Roberts, 7th Infantry, although an instructor in the Department of Military Art, rendered, in addition to his regular work, very great service in this Department.

Fortunately the course in law for both the Staff and the Line Classes was completed before the unexpected early graduation of the classes. This Department however, has in preparation for issue the lectures on International Law, delivered to the Staff Class and the work cannot be completed in the ordinary way, due to the relief of the Senior Instructor in Law. An effort will be made, however, to finish the work as best can be done.

JNO. BIDDLE PORTER.

*Lt.-Col., Judge Advocate U. S. Army,
Senior Instructor in Law.*

DEPARTMENT OF LANGUAGES

April 26, 1914.

From: The Senior Instructor.
To: Lieutenant Thom Catron, 23d Infantry,
Assistant Instructor.
Subject: Annual Report of Department of Languages for 1913-14.

1. Having been suddenly ordered to join my regiment en route to Vera Cruz, the duty of preparing the annual report for this department will devolve upon you.

2. To assist you in this I am enclosing some papers containing recommendations made by me from time to time regarding the operations of the course and notes as to matters to be covered in the annual report.

3. As to your work and that of Lieut. Aristides Moreno, I wish to state that it has at all times been highly satisfactory and results obtained most gratifying. The department and the students under your instruction were fortunate in having the benefit of your services. Lieut. Plassmeyer exhibited commendable diligence.

(Sgd.) CHARLES MILLER,
Major, 7th Infantry.

The Secretary,
Army Service Schools.

Sir:

In accordance with the above letter, I have the honor to submit the following report for the Senior

Instructor, Department of Languages, for the year 1913-14.

The instructors have been:

Maj. Charles Miller, 7th Infantry, Senior Instructor—Sept. 5, 1913 to April 26, 1914.

Capt. Rees Jackson, Infantry, Instructor of Spanish—Sept. 5, 1913 to Sept. 19, 1913.

Lieut. Aristides Moreno, 28th Infantry, Instructor of French—Sept. 5, 1913 to April 26, 1914.

Lieut. Thom Catron, 23d Infantry, Instructor of Spanish—Sept. 5, 1913 to April 28, 1914.

Lieut. Joseph Plassmeyer, jr., 15th Cavalry, Instructor of German—Oct. 11, 1913 to April 28, 1914.

Until the arrival of Lieut. Plassmeyer, Lieut. Catron conducted the German class and upon the relief of Captain Jackson he took over the Spanish class which he conducted the remainder of the year.

The course as prescribed called for 165 half-days for the Staff Class and 64 half-days for the Signal Class; due to the early closing of the Schools the Staff Class course only reached 100 half-days.

The subjects were as follows:

Staff Class—

Spanish, 1 section, 3 student officers,
French, 2 sections, 13 student officers,
German, 1 section, 4 student officers.

Signal Class—

Spanish, 2 sections, 11 student officers.

The larger classes were divided into two sections so as to permit those who could progress faster to do so.

The work in all languages was satisfactory and all student officers were declared proficient within the limits of the course. The shortness of the course precluded the attainment of more than an excellent elementary proficiency.

The Department has undertaken the compiling of two Military Word Books, one German-English and one Spanish-English; the former is now ready for the printer; the latter is well under way.

A number of translations have also been made; these have appeared in print from time to time and copies have been forwarded to the General Staff.

The Advanced Section in French started a translation of the Campaign of Napoleon's Army of Reserve in 1800. This work has gotten more than a good start and has been revised and corrected by the Department. It is intended for the use of future Staff classes, in military research work.

The experience of this and other years has led to the following recommendations:—

1. The course in foreign languages in The Army Staff College.

(a) That paragraph 8, G.O. 128, W.D., series, 1911, be amended to include the requirement of an elementary knowledge of one of the three modern languages taught at these schools (French, German, Spanish);

That this requirement become effective with the class entering The Army School of the Line, September, 1915.

(b) That Section IV, par. 35, same order, be amended by omitting the sentence: "Provided, that no student officer will be permitted to select one of the languages unless he has a satisfactory knowledge of Spanish, to be determined by the Senior Instructor, Department of Languages."

(c) That paragraph 36, same order be amended so as to prescribe examinations in the course of languages.

(d) That the record of the student officer, at the completion of the course in languages, show more specifically than is at present the case, the degree of proficiency in languages to which the officer has attained.

2. The course in Spanish in The Army Signal School.

(a) That the time allotted to the language course in The Army Signal School be increased from 64 to 100 half-days.

(b) That paragraph 45, same order, be amended so as to prescribe examinations in the course in foreign languages.

(c) That the record of the student officer at the completion of the course in languages show more specifically than is now the case the degree of proficiency to which the officer has attained.

3. That an additional officer be detailed to conduct the course of the Signal Class in Spanish.

4. That, following the practice of and in the manner obtaining at the United States Military Academy, West Point, N.Y., instructors be sent to Europe during the summer for the purpose of gaining experience in and perfecting themselves in the languages they teach.

THOM CATRON,
2d Lieutenant, 23rd Infantry,
Assistant Instructor.

DEPARTMENT CARE OF TROOPS

April 28, 1914.

In this department I have given instruction to five different classes which will be reported on separately:

ARMY SCHOOL OF THE LINE

The sanitary work in this school has been coordinated with that of the Department of Military Art in the management of military organizations.

Field hygiene and the employment of the medical department in the field has received the most attention.

Lectures were given as follows:

1. Regimental Aid—Slightly Wounded Station.
2. Ambulance Company and Dressing Stations.
3. Field Hospital—Medical Supplies.
4. Sanitary Service of the Line of Communications—Advance Section.
5. Sanitary Service of the Line of Communications—Base Section.
6. The March in Campaign.
7. Camp Sites and Camps.
8. Camp Sanitation.
9. Water Supply in the Field.
10. Food Supplies in the Field.
11. Infectious Diseases of Camps.
12. Infectious Diseases of Camps.

There was also one problem in sanitary tactics but a terrain exercise which was scheduled for the class was not given on account of the early closing of the school.

The Class has paid great attention to this work and an effort has been made to give a more thorough idea of the work by the use of charts, models, etc.

THE ARMY STAFF COLLEGE

The work of sanitary instruction with this class comprised a series of lectures and conferences on the larger questions of army sanitation and hygiene and consideration of the duties of the principal staff officers of the medical department of a division in the field.

The schedule of lectures was as follows:

1. Selection of Soldiers.
2. Exercise, Training and Work in Relation to the Military Service.
3. Water Supplies in Garrison.
4. Food Supplies in Garrison.
5. Military Equipment and Clothing.
6. The Army Shoe.
7. Barrack Construction and Ventilation.
8. The Principles of Plumbing, Sewerage, Conservancy and Sewage Disposal.
9. The Habits of the Soldier in Relation to his Efficiency.
10. Climatology in Relation to Military Health and Efficiency.
11. Sanitary Inspection in the Military Service.
12. The Prevention of Camp Diseases in Newly Raised Commands.
13. The Civil Sanitary Function of the Army Medical Department in Territory Under Military Control.
14. Army Medical Statistics in Relation to Epidemiology and Geography of Diseases and Their Bearing on Military Purposes.
15. Sanitary Service in the 2d Bull Run Campaign.
16. Sanitary Service in the Fredericksburg Campaign.

In addition to this the class was given two conferences and two problems covering the duties of the medical department in campaign.

From the interest shown and consideration of the solutions of problems this class has a very complete knowledge of the work and the position of the medical department in the military hierarchy.

SPECIAL CLASS FOR FIELD OFFICERS

The schedule carried out by the department for this class was as follows:

1. Medical Department Organization in War.
2. Regimental Aid—The Slightly Wounded Station.
3. Dressing Stations.
4. Field Hospitals—Medical Supplies.
5. Sanitary Service Line of Communications—Advance Section.
6. Sanitary Service Line of Communications—Base Section.

MEDICAL OFFICERS CORRESPONDENCE SCHOOL

This was the fourth year in an outlined four years' course covering the subject of sanitary tactics.

Thirty officers were detailed for the course and at the time of the closing of The Army Service Schools 18 had completed the work and 7 had sent in solutions to part of the problems. The remaining solutions will undoubtedly be received from all who are not in actual field service at this time.

Six problems were sent out covering the complete operations of a division in campaign. These problems were in series and not only required the decisions of the sanitary officers in carrying out their part of the work but also the inclusion of the actual recommendations, orders, etc., in their proper form.

Great improvement was shown by members of the class and the number of officers in the Medical Corps having a working knowledge of sanitary tactics has been materially increased since the inception of this course.

THE ARMY FIELD SERVICE SCHOOL FOR MEDICAL OFFICERS

The class this year consisted of five regular officers and four militia officers (one from each of the

following states: New York, Maryland, Kansas and Oklahoma).

All of these officers took a serious interest in the course and their work was very satisfactory.

The course this year unfortunately was cut short by the closing of the school and only about one half of the work was completed, and the most interesting and instructive part concerning the larger units such as the division and field army was only slightly considered.

The entire course as outlined in the schedule of exercises would have consisted of:

- 13 conferences on the Sanitary Service in Campaign,
- 14 conferences on Military Art,
- 3 conferences on the Laws of War,
- 12 half days on sketching and map reading,
- 4 map maneuvers,
- 8 field problems,
- 8 map problems,
- 7 terrain exercises,
- 1 staff ride.

In connection with the course this year I wish to express my thanks to the instructors in the different departments of these Schools for their cheerful cooperation with me in the effort to make this work a success.

W. N. BISPHAM,
Major, Medical Corps.
Director.

REPORT ON EQUITATION

April 28, 1914.

The course in Equitation for 1913-14 began on November 3, 1913. All officers of the Line, Engineer and Signal classes were required to take the course, except graduates of the Mounted Service School. In addition, the course was optional to members of the Faculty and the Staff Class. The classes were divided into three platoons, each platoon riding for fifty minutes on Mondays, Tuesdays, Thursdays and Fridays, holidays excepted, from 3:30 to 6:00 p.m.

The course was modeled upon that of the Mounted Service School, modified, necessarily, to suit the conditions here. The principal points covered were the following: (a) saddling; (b) bridling and biting; (c) mounting; (d) seat; (e) hands; (f) use of aids; (g) explanation and illustration of progressive system of training and developing young mounts, including the use of cavesson and longe, saddling and mounting an unbroken horse, suppling the haunches and forehand, bending lessons, two track work, backing, and the progressive method of obtaining and perfecting the gallop leads; (h) instruction in using the double bridle; (i) rising to the trot; (j) jumping.

It was the aim of the course, in addition to giving the officers the physical exercise called for in G.O. No. 148, War Department, 1910, to instruct them in the training of an officer's mount and to try, in the limited time devoted to the work, to give each officer a good seat, good hands, and to teach him to jump with ease and grace the ordinary obstacles met with on the Officer's Russian Ride Test.

The School was particularly well adapted for its work, in that there were on hand enough well trained horses and good jumpers to suitably mount the different platoons; and also, which proved of the greatest benefit to the men riding, enough flat saddles purchased by the School, of French and American make, to mount one entire platoon.

Some of the Infantry members of the class had never ridden before coming here, but within a very short time they had picked up the rudiments of the art, and from then on their progress was rapid and pleasing, until, when the course ended on the 2d of April, they were all able to ride over any of the obstacles found on the Russian Ride Course. At the end of each month during the course there was held, in the Riding Hall, a Musical Ride, showing each platoon in its regular work and the steady progress they were all making. The greatest interest was evinced by all the officers in their equitation work, and, aside from the benefit of learning to ride properly, the physical exercise they all derived from their work fitted them all better for the other school work.

The College Riding Hall is up to date in every particular, and contains everything, in the way of equipment, found in the best riding halls.

Making the Course in Equitation compulsory for all student officers has proved a great success, both in popularity with the officers and in the benefit to service in general, in turning out fairly good horsemen each year.

H. E. MANN,
1st Lieutenant, 12th Cavalry,
Instructor.

THE ARMY SIGNAL SCHOOL

April 28, 1914.

I submit the following report for the school year 1913-14:

The following officers were regularly assigned to duty with the Signal School by proper authority:

Major L. D. Wildman, Director, from previous year.

Captain Parker Hitt, Instructor, from previous year.

First Lieutenant F. E. Overholser, Instructor, Enlisted Men's Schools (reported for duty per paragraph 52, Special Orders No. 224, War Department, September 25, 1913).

Second Lieutenant E. R. Andrews, 17th Infantry, Instructor, from previous year.

STUDENT OFFICERS

The following student officers were graduated on April 28, 1914:

First Lieutenant D. H. Bower, 22d Infantry,
First Lieutenant C. R. Byrd, 17th Infantry,
First Lieutenant G. F. N. Dailey, 20th Infantry,
First Lieutenant R. A. Dunford, 26th Infantry,
First Lieutenant Felix Emmanuelli, P. R. I.,
First Lieutenant L. R. Fredendall, 2d Infantry,
First Lieutenant D. D. Gregory, 5th Cavalry,
First Lieutenant C. Lininger, 1st Cavalry,
First Lieutenant J. A. McAndrew, 2d Infantry,
First Lieutenant H. O. Olson, 18th Infantry,
First Lieutenant W. E. Pridgen, 1st Infantry.

On April 8, 1914, Captain Robert M. Nolan reported to the Director of The Army Signal School for a special course of instruction.

On September 12, 1913, Field Company A arrived from Fort Omaha, Nebraska, for duty with The Army

Service Schools. Captain George E. Kumpe, Signal Corps, was assigned to Company A, and reported for duty September 29, 1913. Lieutenant Blain was relieved from duty with Field Company A and left the post December 20, 1913. Lieutenant Thomas L. Sherburne, Signal Corps, reported for duty with Company A on December 18, 1913.

On October 6, 1913, Companies B and H, Signal Corps, were reported to the Commandant for duty with The Army Service Schools, under the command of 1st Lieutenant C. R. Mayo. Company H was designated as a telegraph company with orders to reorganize in accordance with Circular 8, S. O. Washington, October 17, 1913. Lieutenant Mayo was designated to command the company. Company B was placed under the command of 1st Lieutenant F. E. Overholser. This company was designated as the *instruction company*. Both companies remained under the control of the Commandant of the Schools.

On April 28, 1914, Lieutenant C. H. Mason, Signal Corps, reported for duty with Field Company A.

On April 26, 1914, Captain Parker Hitt was assigned to Company H and Captain Nolan to Company B. Both companies were immediately ordered on detached service.

Field Company D, although assigned to The Army Service Schools, has been on detached duty in Texas for the past year.

THE ARMY SIGNAL SCHOOL

The director of The Army Signal School is, by direction of the Secretary of War, responsible for the technical instruction of all officers and enlisted men of the Signal Corps.

The time allotted to the various subjects is given below in half-days:

Signal Book, 6; Codes and Ciphers, 9; Visual Signaling, 15; Photography, 12; Field Exercise, 32; Swoope's Electricity, 24; Batteries, I. C. S., 4; Map Problems and Practical Line Work, 17; Technical Conferences, 5; Laboratory, 40; Manual No. 3, 20; Alternating Currents, 18; Alternators, 3; Internal Combustion Engines, 15; Radiotelegraphy, 41; Field Company Work, 5; Spanish, 64; Engineering, 20. Total, 350 half-days.

DEPARTMENT OF SIGNAL ENGINEERING

This course included instruction in:

(a) Electricity; (b) Units and Electrical Measurements; (c) Signal Engineering; (d) Batteries, primary and secondary; (e) Telegraphy; (f) Radiotelegraphy; (g) Telephony; (h) Visual Signaling; (i) Military Lines of Information; (j) Gas and Oil Engines; (k) Photography; (l) Practical Operation and Repair of Signal Corps Instruments; (m) Line Construction; (n) Codes and Ciphers; (o) Signal Corps Manuals, (p) Logistics as Applied to Signal Troops.

Theoretical

The method of instruction was by means of standard text-books supplemented by lectures by the instructors and laboratory experiments at the time of the lectures. The time devoted to the study of *Swoope's Practical Electricity* was shortened from the hours devoted to it last year. It is recommended that the time be still further reduced during the coming year, and *laboratory work* correspondingly increased.

The standard text-books used during the year were as follows:

Lessons in Practical Electricity, Swoope; Primary Batteries, I. O. S. Pamphlets; Storage Batteries, I. C. S. Pamphlets; Management of Military Telegraph Lines, Signal Corps Manual No. 2; Electrical Instruments and Telephones of the U. S. Signal Corps, Signal Corps Manual No. 3; Visual Signaling, Signal Corps Manual; Property and Disbursing Regulations of the U. S. Signal Corps, Signal Corps Manual No. 7; Principles of Gas Engines, I. O. S. Pamphlets; Carbureters, I. C. S. Pamphlets; Electric Ignition Devices, I. C.

S. Pamphlets; Troubles and Remedies, I. C. S. Pamphlets; Alternating Currents, I. C. S. Pamphlets; Alternators, I. C. S. Pamphlets; Alternating Current Apparatus, I. C. S. Pamphlets; Radiotelegraphy, Andrews; Manual of Wireless Telegraphy for the Use of Naval Electricians.

The map problems of last year were increased in number and revised to correspond with the map problems in the course in Military Art. Troops of all arms and the authorized Signal Corps units for lines of information were utilized in general and special situations. Small spools with lengths of silk measured to the scale of the map represented the Signal Corps wire equipment. Many problems in the use of the field and telegraph companies were solved on the map by the student officers under the direction of the instructors.

A number of new problems were introduced involving the use of the *field telegraph company* in the construction, repair, and maintenance of long and somewhat complicated lines of information covering a large area of territory. These solutions required the student officers to make requisitions for necessary material and indicated the way in which the property and troops would be utilized in time of war.

These problems have largely taken the place of "Technical Conferences." These conferences were abandoned because technical papers on Signal Corps subjects could not be expected from student officers with no Signal Corps experience.

Practical

The instruction in *practical electricity* is conducted in the laboratory by the individual problem method. These problems are carefully stated and printed on separate sheets which are issued to the student officers as they progress in the laboratory

work. The first series involves the use of voltmeters, ammeters, wattmeters, ohmmeters, galvanometers and other instruments, in accordance with the principles of Ohm's law for direct currents. In many of these problems precise measurements and some manual dexterity in manipulation are necessary. The second series is more varied in character, the problem involving the use of the Wheatstone bridge in connection with the determination of faults in submarine and aerial cables, land lines, and the types of insulated wire used by the field and telegraph companies. During this part of the course instruction is given in cable splicing. The student officers are required to do the manual work of soldering, vulcanizing and joint wiping. The third series consists of special problems which are optional with the student officers and require some independent research.

It has been the aim in this course to make each student officer entirely self-reliant. No assistance is given by the instructor until the student officer has exhausted his own resources. Laboratory notebooks are kept and the mark obtained depends upon the accuracy of the work, the clearness with which the problem has been treated from all standpoints, and the mastery of the situation as indicated by the methods of the student officer in conducting his experiments. It is believed that this way of handling laboratory work gives the student greater confidence in his own ability to get results than the former method of consultation between students covering any problem and the direct and constant supervision of each step by the instructor. It is recommended that the laboratory work for next year follow these same lines.

The course in the "*Care and Repair of Signal Corps Instruments*" was carried on in the laboratory

under the direction of both Captain Hitt and Lieutenant Andrews. It consisted of the analysis of the circuits in the various types of telephones, telephone switchboards, buzzers, repeaters, quadruplex and induction telegraph sets, dynamos, motors, fire control panels, different makes of cells, condensers, spark coils, transformers, and cable instruments. In this work, as in the other part of the laboratory course, independent work has been insisted upon. The finished notebooks require simplified diagrams of the instruments and electrical data obtained from careful tests of the various elements of the circuits.

The 40 half-days assigned to laboratory work were found inadequate, although the work accomplished has been satisfactory in quality. At least 80 half-days should be devoted to practical work in electricity. The laboratory equipment is perfectly satisfactory.

The instruction in telegraphy and visual signaling resulted in qualifying the entire class with the acetylene lantern and heliograph at eight words per minute; sending and receiving with the flag at five words per minute; sending and receiving in telegraphy with the Morse code (using the sounder) at 15 words per minute; and sending and receiving in the General Service code (using the buzzer) at 15 words per minute.

The telegraph practice has been conducted during the entire course by Lieutenant Andrews, and buzzer practice has been obtained by connecting all the student officers' quarters and furnishing an operator to transmit "press" between 7:30 and 8:30 p.m. each day.

The instruction in "*Codes and Ciphers*" has been carried on in the laboratory by both Captain Hitt and Lieutenant Andrews. This instruction has been much more comprehensive than ever before and has involved the use of various methods of encipher-

ing and deciphering and the deciphering of messages when the key word and the manner in which the message was enciphered were both unknown.

DEPARTMENT OF ENGINEERING

The instruction in *Topography* was conducted by The Army Field Engineer School, in accordance with the system in use at The Army Service Schools. The instruction covered 20 half-days and was devoted to the elements of military sketching. As stated in former reports, this subject cannot be taught adequately in 20 half-days. It is therefore recommended that in future years this part of the course in The Army Signal School be omitted and the time now devoted to military sketching be transferred to electrical work in the laboratory. It is believed that all the time of the student officers in the Signal School should be devoted to purely Signal Corps work.

DEPARTMENT OF LANGUAGES

Sixty-four half-days were devoted to instruction in Spanish, conducted by the Department of Languages, The Army Service Schools. The comments on the course in sketching apply with equal force to the course in Spanish. No man can become proficient in a language, or even be given an elementary knowledge in 64 half-days. It is impossible to devote more days to instruction in languages without omitting something of greater value to the Signal Corps. The main object of the Signal School is to develop officers along Signal Corps lines to enable them to become fitted for detail in the Signal Corps. It is therefore recommended that in future years the 64 half-days devoted to Spanish be transferred to radio work in The Army Signal School.

PHOTOGRAPHY

The instruction in photography has been entirely practical. Lectures on optics were omitted. Student officers, after preliminary instruction in the use of shutters and diaphragms, were given cameras of different makes, with plates and films, which they were required to expose, develop, and from which prints were made on various makes of paper requiring different treatment. Enlargements and copies were also made. This work was done by the student officers at such times as they found convenient. The officers were marked proficient when the work accomplished was satisfactory. It is believed that each student officer this year is fully prepared to take any type of camera into the field and make successful photographs.

RADIOTELEGRAPHY

A thorough grounding in radio work is now absolutely necessary for the signal officer, and more time has been devoted to that subject during the past year than ever before.

The theoretical instruction has been conducted by both Captain Hitt and Lieutenant Andrews. The lectures on this subject by Lieutenant Andrews have been compiled, printed and distributed to the student officers for reference. These lectures are comprehensive in scope and contain valuable formulæ and instructions for guidance in the use of radio apparatus in general. Without going further into the details of this subject, it may be stated that the results have been thoroughly satisfactory. Six members of the class, after the schools were discontinued, requested that they be allowed to take the examination for the first grade radio operator's license under regulations prescribed by the Department of Commerce. Each

one of these six officers passed a satisfactory examination in both the theoretical and practical part and were issued licenses. These licenses, in addition to the theoretical and practical knowledge of radio sets, require a speed test of 20 words a minute, both receiving and sending. It is believed that if the course had not been discontinued on account of the closing of the schools, every member of the class would have qualified for a first grade license.

These results are due to the efforts of Captain Hitt and Lieutenant Andrews as instructors, as well as to the enthusiasm and earnest efforts of the student officers. It is recommended that in future years more time be devoted to radio work and that the equipment of the laboratory be extended to include a number of different makes of sending apparatus so that the student officers may obtain sufficient experience to enable them to handle any make of radio apparatus which might fall into their hands in time of peace or war.

The absence of a modern transmitting set was keenly felt, and it is urgently recommended that several different types of sending sets be established in the laboratory, and that at least two more wave-meters be furnished for class work.

PRACTICAL FIELD WORK

On account of the closing of the School before the scheduled time, the present class has been given little experience with the practical work of the field and telegraph companies. This is to be regretted, as the work of these companies is a very important part of the instruction in the Signal School. The student officers who have been graduated this year, however, have a thorough knowledge of all the instruments used in these companies and a general knowledge of the manner in which these companies

accomplish their purpose through instruction which has been given in the map problems throughout the year.

It is recommended that in future years a full week of terrain exercises with the field company be given in September so that the ends and aims of the field company may be held in mind while the members of the class are receiving instruction in the theory and use of instruments.

In addition to his other duties, Lieutenant Andrews succeeded the Director as radio examiner for operators' licenses under the Government's rules and regulations. During this year eleven Commercial First Grade, three Commercial Second Grade, and five Amateur First Grade licenses have been issued. Of the eleven First Grade Commercial licenses, six of them were granted to student officers of this year's Signal School, as follows: Lieutenants Gregory, Bower, Pridgen, Dunford, Byrd and Dailey.

Many other applicants were examined but found not qualified to hold licenses.

LECTURES

The Director of the Signal School, in accordance with the schedule of The Army Service Schools, delivered lectures on the work of the Signal Corps to the different classes, utilizing the field and telegraph companies for demonstration purposes.

INSTRUCTORS

The instruction in both The Army Signal School and the various enlisted men's schools has been carried on by the instructors regularly assigned to The Army Signal School. The services of Captain Kumpe and Lieutenants Blain, Sherburne and Mayo have also been utilized in all the schools in various ways. Each instructor has worked hard and faith-

fully and the results have been entirely satisfactory.

The School will lose the services of Captain Parker Hitt next year. The Director wishes to express his appreciation of the thorough and earnest way in which Captain Hitt has conducted his course. I can conceive of no better instructor.

THE ENLISTED MEN'S SCHOOLS

Company B, Signal Corps, in October, 1913, was designated as the "school company for enlisted men." This was a new departure and it was found necessary to provide suitable space for school work laboratory and recitation rooms. The basement of B Company's barracks was converted into an electrical laboratory, a battery of 100 cells was installed with separate leads to each bench, and laboratory problems were drawn up which were progressive and suited to the elementary education and needs of the enlisted men.

The day-room on the first floor of the barracks was converted into a telegraph practice room capable of instructing 24 operators at the same time. A small room in the basement was set aside for the use of the radiotelegraph class, with an antenna 100 feet high on the roof of the barracks. A one k.w. portable radio set driven by a gasoline engine was installed. Students of this class were instructed in receiving in the barracks, and were permitted to "listen in" at all times.

The class in gasoline engines was conducted in a portion of the electrical laboratory in the basement, where gasoline engines of various makes, generators and charging panels were installed.

The classes in cable splicing and telephony were also held in the electrical laboratory. In telephony, the classes were required to perform outdoor work in

the erection of poles, climbing and stringing wires. The storage battery work was also part of this course.

Recitation work in electricity was conducted in the section room in the College Building, two classes being held daily under the senior instructor. These classes were divided into a privates' class and a non-commissioned officers' class. The text-books were the same as those used in the student officers' class of The Army Signal School.

Instruction in visual signaling was given throughout the period covered by this report with the flag, heliograph and acetylene lantern. During the same time, the men were instructed in the school of the soldier and first-aid, 45 minutes each day being devoted to outdoor drill.

The following statement shows in detail the number of men who attended classes in the school:

Noncommissioned officers	21
Privates	90
Total	<u>111</u>

First Lieutenant F. E. Overholser, Signal Corps, was detailed as senior instructor and the success of this school is due to his untiring efforts, as well as to those of First-class Sergeant Wylie, who is here recommended for his zeal and efficiency under disadvantageous conditions.

It is recommended that during the next school year a similar scheme of instruction be followed. The outline of this scheme, with the necessary papers and all data, is on file in the office of the Director, Army Signal School.

The interest in this school has been great, the enlisted men have accepted instruction eagerly, and their efficiency has been greatly increased by this course of study.

In addition to the Enlisted Men's Schools mentioned above, Companies A and H have carried on independent instruction work in telegraphy and in the duties of the field and telegraph companies. This instruction has at times been carried on jointly with the Enlisted Men's Schools (the radio class under Lieutenant Overholser and Lieutenant Andrews being turned over for a time to the Commanding Officer of Field Company A for instruction in the radio pack sets which are a part of the equipment of that company).

FIELD TELEGRAPH COMPANY

The field telegraph company, under Lieutenant Mayo, was organized in accordance with Circular 8, S. O., Washington, October 17, 1913. A large amount of work has been done in organizing the sections and providing for the transportation of the equipment of both the telegraph and telephone sections. A telegraph and telephone school was established in the barracks of Telegraph Company H which every man of the company was required to attend. Both Telegraph Company H and Field Company A were used for demonstration purposes before the Line Class, Staff Class, and Field Officers' Class, of The Army Service Schools.

L. D. WILDMAN,
Major, Signal Corps,
Director, Army Signal School.